



Essential Oil University

GC/MS Report

Item	Lot
Oregano EO <i>Origanum vulgare</i>	2G
Date	Analyst
2/12/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Oregano EO, meets the expected chemical profile for authentic essential oil of *Origanum vulgare*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.



Sample Information

Company: Revive**Sample Name:** Oregano EO**Botanical Name:** Origanum vulgare**Lot Number:** 2G**Production Method:** Steam distilled**Sample Type:** EO - Single**Country of Origin:** Turkey**Analysis Date:** 2/12/2025**Manufacture Date:** December 2024

GC/MS

Inst. ID: Shimadzu GCMS-QP2010Ultra**Injection Type:** Split**Split Ratio:** 24.4**Column Type:** ZB-5**Injection Volume:** 0.1 µL**Temperature Program:** 2C/min

Physical Data

ANALYSIS

Optical Rotation @20°C

Refractive Index @20°C

Specific Gravity @20°C

METHOD

USP[781]

USP[831]

USP[841]

RESULTS

-.72

1.51256

0.95302



Ret. Time	Component	Ret. Idx.	Conc. %	
3.041	Unidentified	549	0.01%	
4.013	3-Methylbutanal	645	0.01%	
4.125	2-Methylbutanal	656	0.01%	
4.334	3-Penten-2-ol	676	0.01%	
6.035	Methyl 2-methylbutyrate	768	0%	
11.787	alpha-Thujene	922	0.47%	
12.190	alpha-Pinene	930	1.39%	
12.718	Thuja-2,4(10)-diene	939	0.01%	
13.078	Camphene	946	0.06%	
14.688	1-Octen-3-ol	975	0.05%	
15.272	Myrcene	986	0.86%	
15.482	Unidentified	990	0.01%	
16.178	Pseudolimonene	1002	0.03%	
16.321	alpha-Phellandrene	1004	0.05%	
16.470	delta-3-Carene	1006	0.03%	
16.980	alpha-Terpinene	1014	1.61%	
17.138	ortho-Cymene	1017	0.03%	
17.472	para-Cymene	1022	7.34%	
17.560	Unidentified	1023	0.01%	
17.751	Limonene	1026	0.1%	IFRA
17.870	beta-Phellandrene	1028	0.04%	
17.919	1,8-Cineole	1029	0.24%	
18.080	Unidentified	1031	0.01%	
18.153	cis-beta-Ocimene	1032	0.01%	
18.832	trans-beta-Ocimene	1043	0.05%	
19.629	gamma-Terpinene	1055	5.71%	
20.407	cis-Linalool oxide (furanoid)	1067	0.03%	
20.528	Pinol	1069	0.01%	
21.420	Terpinolene	1082	0.05%	
21.620	Fenchone	1085	0.04%	
21.737	para-Cymenene	1087	0.03%	
22.364	Linalool	1097	1.56%	IFRA
22.586	Hotrienol	1100	0.01%	
22.842	beta-Thujone	1104	0.01%	IFRA
24.055	Unidentified	1121	0.01%	
25.595	Camphor	1144	0.02%	
27.296	Borneol	1168	0.3%	
27.778	Unidentified	1175	0.01%	
27.913	Terpinen-4-ol	1177	1.51%	
28.353	para-Cymen-8-ol	1184	0.03%	



Ret. Time	Component	Ret. Idx.	Conc. %	
28.947	alpha-Terpineol	1192	0.11%	
29.132	Unidentified	1195	0.01%	
31.260	Thymol methyl ether	1226	0.06%	
31.886	Carvacryl methyl ether	1235	0.04%	
32.365	Carvone	1242	0.03%	IFRA
32.811	Geraniol	1249	0.01%	IFRA
33.366	Carvenone	1257	0.02%	
34.781	Thymol analogue	1278	0.02%	
35.119	trans-Anethole	1283	0.03%	
35.388	Thymol	1287	4.4%	
36.151	Carvacrol	1298	68.44%	
36.948	Unidentified	1310	0.06%	
37.467	Unidentified	1318	0.02%	
39.021	Thymol acetate	1342	0.01%	
39.412	Eugenol	1348	0.01%	IFRA
40.261	Carvacryl acetate	1361	0.05%	
40.683	Unidentified	1367	0.01%	
41.014	alpha-Copaene	1372	0.02%	
41.173	Geranyl acetate	1374	0.01%	
41.534	beta-Bourbonene	1380	0.01%	
42.579	Methyleugenol	1396	0.01%	IFRA
42.857	Unidentified	1400	0.01%	
43.814	beta-Caryophyllene	1415	3.22%	
44.671	trans-alpha-Bergamotene	1429	0.03%	
44.993	Aromadendrene	1434	0.09%	
45.137	Unidentified	1437	0.01%	
45.439	Unidentified	1442	0.01%	
46.049	alpha-Humulene	1451	0.16%	
46.322	Alloaromodendrene	1456	0.01%	
46.461	Unidentified	1458	0.01%	
47.101	Unidentified	1468	0.01%	
47.256	trans-Cadina-1(6),4-diene	1471	0.01%	
47.466	Unidentified	1474	0.03%	
48.124	Unidentified	1485	0.01%	
48.265	Viridiflorene	1487	0.06%	
48.588	Unidentified	1492	0.01%	
48.721	alpha-Muurolene	1494	0.01%	
49.304	beta-Bisabolene	1504	0.74%	
49.607	gamma-Cadinene	1509	0.05%	
49.913	delta-Cadinene	1514	0.04%	



Ret. Time	Component	Ret. Idx.	Conc. %	
51.231	Unidentified	1536	0.01%	
53.354	Spathulenol	1572	0.04%	
53.663	Caryophyllene oxide	1577	0.09%	
53.901	Unidentified	1581	0.01%	
54.305	Unidentified	1588	0.01%	
55.283	Humulene epoxide II	1605	0.02%	
55.609	Unidentified	1610	0.01%	
57.115	epi-alpha-Cadinol	1637	0.05%	
57.884	Unidentified	1651	0.02%	
71.709	Unidentified	1912	0.03%	
76.131	Unidentified	2004	0.01%	
95.648	Unidentified	2457	0.01%	

Total Identified Compounds **99.61 %**

